

Work Order ID 135369

Wednesday, August 12, 2015 4:25:39 PM

135369

Page 1

Item ID: D3912-1

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Eyebolt

Start Date: 8/19/15 Start Qty: 6.00

6

Cust Item ID:

Required Date: 8/19/15 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals: Process Plan: MLJ Date: AUG 13 2015 Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D3912	B

100 0.00

100

Doosan

Memo

0.00

Doosan Lathe

TURN AS PER FOLIO FA871AND DWG

Prog Rev: B

Dwg Rev: B

Deburr as required

6 6 JFC 2015-08-18

110 QC2- Inspect parts off machine FAI/FAIB 0.00

110

QC

Memo

0.00

Quality Control

6 6 JFC 2015-08-18

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By																																																									
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Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

Wednesday, August 12, 2015 4:25:39 PM

135369

Page 2

Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Item Name: Eyebolt

Start Date: 8/19/15 **Start Qty:** 6.00 ***6***

Cust Item ID:

Required Date: 8/19/15 **Req'd Qty:** 6.00 ***6***

Customer:

Reference:

Run Start *NR1*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

**Insp.
Stamp**

0.00

120

QC

Memo

0.00

Quality Control

130

Identify as per dwg & Stock Location: 51065

0.00

130

Packaging

Memo

0.00

Packaging

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Memo

0.00

Quality Control

mc AUG 19 2015

[20150819]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:12.5%;">Skid-tube ☐</td> <td style="width:12.5%;">Cross tube ☐</td> <td style="width:12.5%;">Water Jet ☐</td> <td style="width:12.5%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Date :		Step #:		QTY Effective :			MRB (QS1042) Approval																		
Description Work Order Deviation				Disposition				Completed By																	
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								QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐																				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐																				
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Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐																				
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Past Expiry Date ☐	Manufacturing Process ☐	OTHER :																							
Misidentified ☐	Past Due ☐																								

Picklist Print

Wednesday, August 12, 2015 4:25:38 PM

Page 1

Work Order ID: 135369

135369

Parent Item: D3912-1

D3912-1

Parent Item Name: Eyebolt

Start Date: 8/19/15

Required Date: 8/19/15

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP RevA: New issue DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M303R2.000		Purchased	No			100	f	17.8000	0.25	1.578947			

M303R2 000

303 ROUND BAR 2"

Location

Loc Qty

Loc Code

MAT028

17.8

~~m130013~~

4.6

m132886

13.2

1,546 ^{ft} JH 2015-08-18

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
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Past Expiry Date ☐	Manufacturing Process ☐				
Misidentified ☐	Past Due ☐	OTHER :			

DART AEROSPACE LTD		Work Order: 135369
Description: Eyebolt		Part Number: D3912-1
Inspection Dwg: D3912	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.13	+/-0.030	0.129	✓		Caliper	OK
Ø0.700	+/-0.010	0.700	✓		"	"
Ø0.500	+/-0.010	0.499	✓		"	"
0.90	+/-0.030	0.897	✓		"	"
0.13 x 45°	+/-0.030 x 0.5°	0.13 x 45°	✓		depth G	OK
0.22	+/-0.030	0.22	✓		HG	31006
0.75	+/-0.030	0.751	✓		Cal + HG	OK + 31006
0.970	+/-0.010	0.971	✓		Cal + HG	" + "
1.72	+/-0.030	1.720	✓		Caliper	OK
1.20	+/-0.030	1.200	✓		"	"
0.625	+/-0.010	0.628	✓		HG	31006
2.23	+/-0.030	2.229	✓		Caliper	OK
R0.13	+/-0.030	0.125	✓		rad G	Shop
R0.015	+/-0.010	0.015	✓		"	"
0.625	+/-0.010	0.627	✓		Caliper	OK
Ø0.650	+/-0.010	0.650	✓		"	"
1.100	+/-0.010	1.100	✓		"	"
0.44	+/-0.030	0.437	✓		"	"
R0.13	+/-0.030	0.13	✓		rad G	Shop
1.00	+/-0.030	1.00	✓		Caliper	OK
0.25	+/-0.030	0.250	✓		"	"
0.88	+/-0.030	0.879	✓		"	"
0.11	+/-0.030	0.109	✓		"	"
Ø0.719	+0.010/-0.000	0.721	✓		4 + Pin	4 + Shop

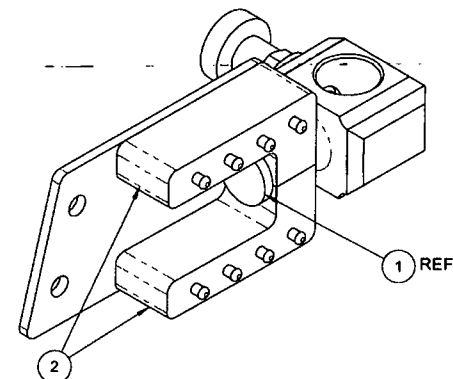
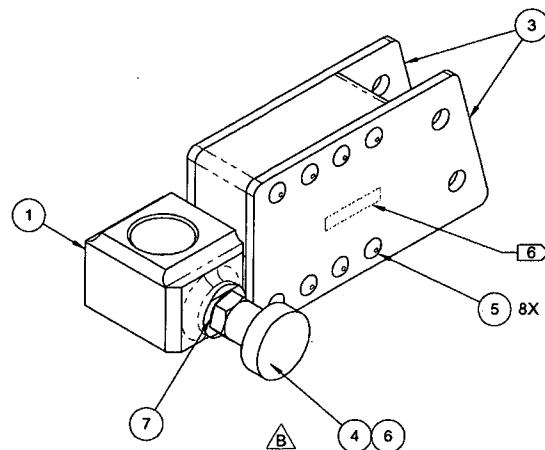
Measured by: JH
Date: 2015-08-18

Audited by: DAS 44
Date: 15/08/19

Preliminary Approval:
Date:

Rev	Date	Change	Revised by	Approved
A	10.06.07	New Issue	KJ	
B	10.08.09	Dimensions revised per Dwg Rev B	KJ	

ITEM	QTY -041	P/N	DESCRIPTION
	X	D3912-041	EYEBOLT RECEIVER ASSY
1	1	D3912-1	EYEBOLT
2	2	D3912-3	EYEBOLT BLOCK
3	2	D3912-5	EYEBOLT PLATE
4	1	D3801-1	SPRING PLUNGER
5	8	MS20615-4M20	RIVET
6	1	MS21209-F615	HELICAL
7	1	NAS1149F0332P	WASHER



SUPPLEMENTAL ISO VIEW
(EYEBOLT PLATE REMOVED
TO SHOW INTERIOR FEATURES)

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

135369_MLS
15-08-13

RELEASED
2010-07-16

D3912-041 EYEBOLT RECEIVER ASSY

NOTES:

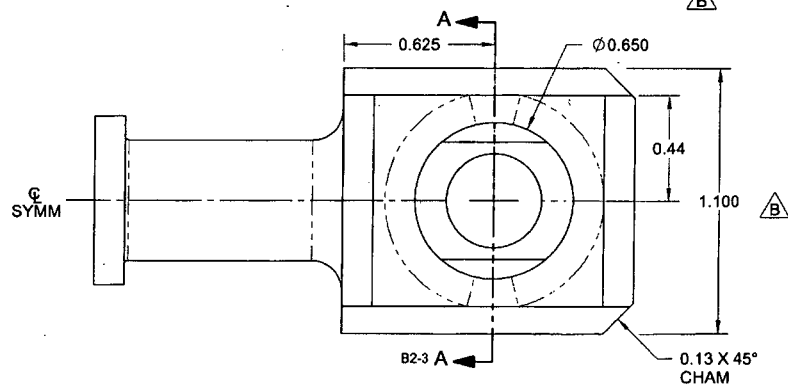
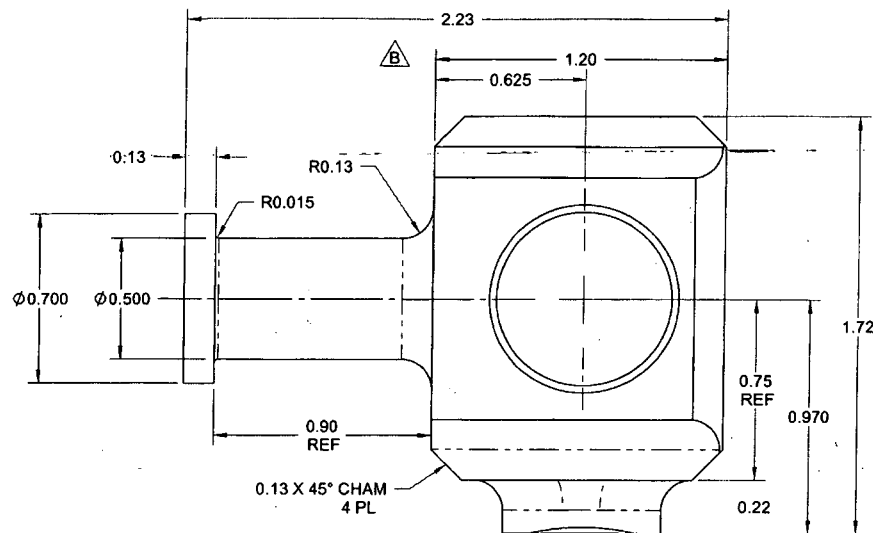
- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N D3912-041 USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT -041: 1.58 lbs

B	D3801-1 WAS D3810-1 SPRING PLUNGER; D4028-041 RMV; MS21209-F615 WAS MS21209-C810 HELICAL; (1) WASHER NAS1149C0663R ADDED; BOSS ADDED TO D3912-1.	JPH	10.06.28
A	NEW ISSUE	JPH	10.03.04
REV.	DESCRIPTION	BY	DATE
DESIGN	ALS		
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	10.06.28		

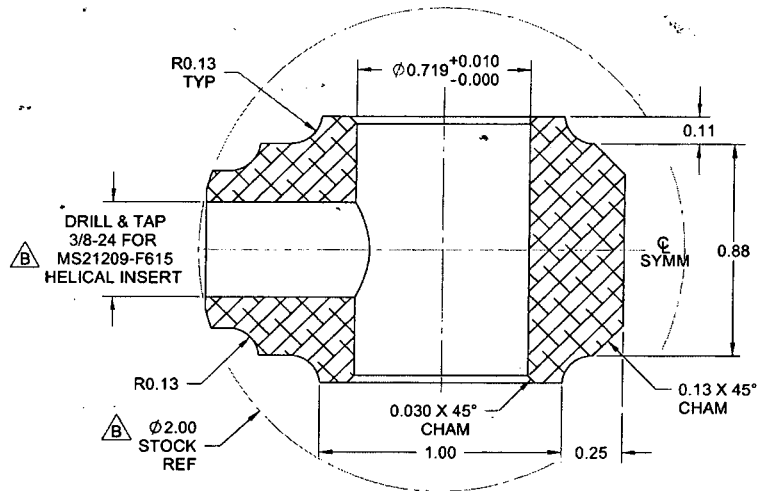
DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D3912** REV. B
SHEET 1 OF 3
TITLE **EYEBOLT RECEIVER ASSY** SCALE NTS

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D3912-1 EYEBOLT

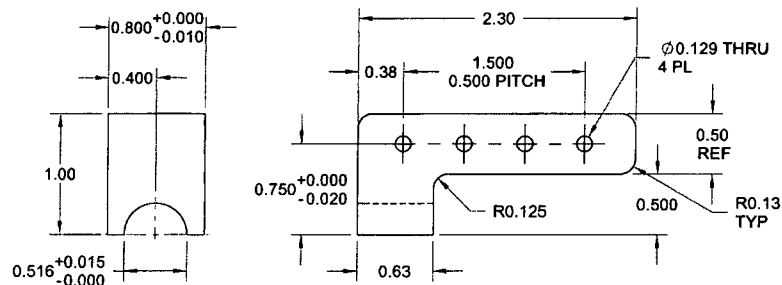


SECTION A-A B6-3

RELEASED
2010-07-16

- NOTES:**
- 1) MATERIAL: 303/304/316 STAINLESS STEEL ROUND BAR, PER ASTM A276 OR ASTM A582 REF DART SPEC M303R OR M304R
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: ID AT ASSEMBLY
 - 7) WEIGHT: 0.45 lbs

DESIGN	ALS	DART AEROSPACE LTD	
DRAWN	1/1	HAWKESBURY, ONTARIO, CANADA	
CHECKED	1/1	DRAWING NO.	REV. B
MFG. APPR.	1/1	D3912	SHEET 2 OF 3
APPROVED	1/1	TITLE	SCALE
DE APPR.	1/1	EYEBOLT RECEIVER ASSY	NTS
DATE	10.06.28	COPYRIGHT © 2010 BY DART AEROSPACE LTD	
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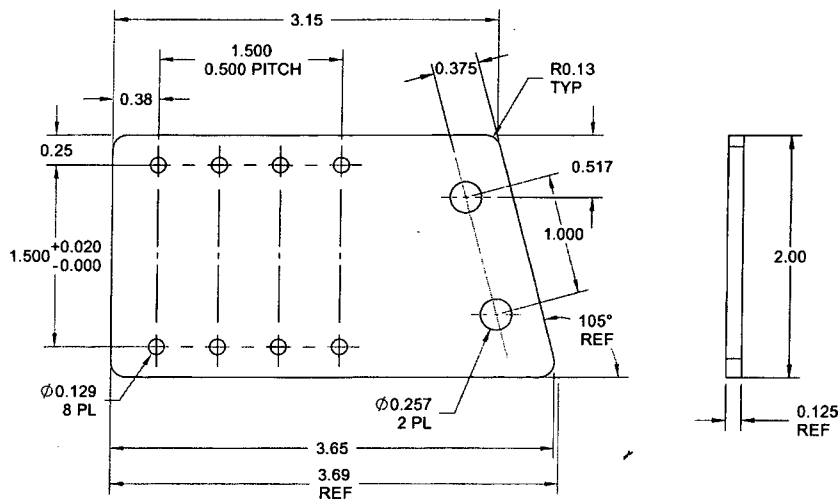
D3912-3 EYEBOLT BLOCK

NOTES:

1) MATERIAL -3: 303/304/316 STAINLESS STEEL BAR, PER ASTM A276
REF DART SPEC M303B OR M304B

-5: 303/304/316 STAINLESS STEEL SHEET ANNEALED 2B, 0.125 THK
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME 5A240
REF DART SPEC M303S11GA OR M304S11GA

- 2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: ID AT ASSEMBLY
7) WEIGHT -3: 0.30 lbs
-5: 0.24 lbs



D3912-5 EYEBOLT PLATE

RELEASED
2010-07-16

DESIGN	ALS	DART AEROSPACE LTD	
DRAWN	8/1	HAWKESBURY, ONTARIO, CANADA	
CHECKED	8/1	DRAWING NO. D3912	REV. B
MFG. APPR.	8/1	SHEET 3 OF 3	
APPROVED	8/1	TITLE EYEBOLT RECEIVER ASSY	SCALE NTS
DE APPR.	8/1	COPYRIGHT © 2010 BY DART AEROSPACE LTD	
DATE	10.06.28	THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	